Phytogen October 2023

ASPS job board, ASPS2023 and GPC E-bulletin.

23 October 2023

Hello ASPS members,

A new position has been posted on the ASPS job board which you can access HERE.

Keep updated with ASPS2023 award winners and program HERE.

The October Global Plant Council E-Bulletin can be accessed HERE.

October 2023 Phytogen – Awards, come to ASPS 2023 to meet and greet

09 October 2023

Welcome to Phytogen for October 2023. At the end of November will be our meeting in Tasmania. Registration and poster abstract submissions are open until November 7th!



We look forward to seeing you all.

Awards and Lectures have been announced. Heartfelt congratulations to all.

Peter Goldacre Award: Dr Tatiana Soares da Costa

Jan Anderson Award: Associate Professor Caitlin Byrt

ASPS Education and Outreach Award: WSU Team

ASPS-*FPB* Best Paper Award: Dr Babar Shahzad

RN Robertson Lecture: Professor Kathleen Soole

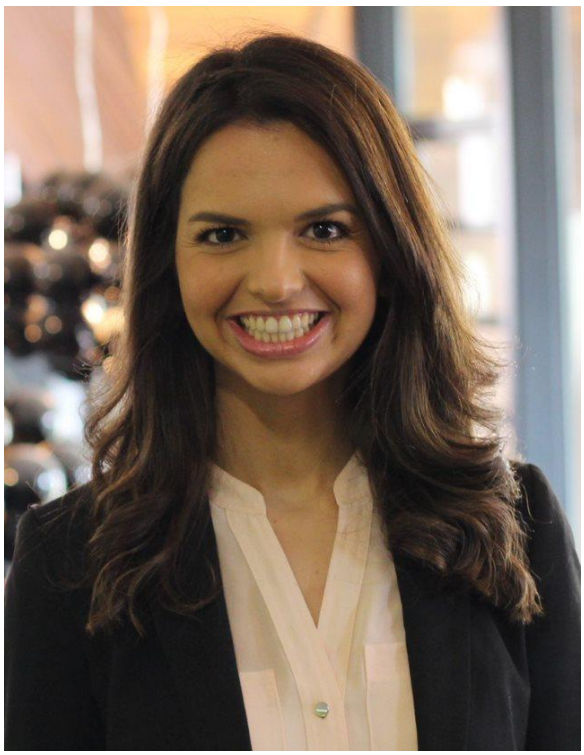
Annals of Botany Lecture: Professor Christine Faulkner

via GIPHY

Here are biographies and you can look forward to catching up with them in Tasmania.

Peter Goldacre Award – Tatiana Soares da Costa, Waite Research Institute, University of Adelaide.

Dr Tatiana Soares da Costa leads a multi-disciplinary research team in the Waite Research Institute at the University of Adelaide dedicated to developing innovative strategies to mitigate the rise in herbicide resistance that threatens agricultural production.



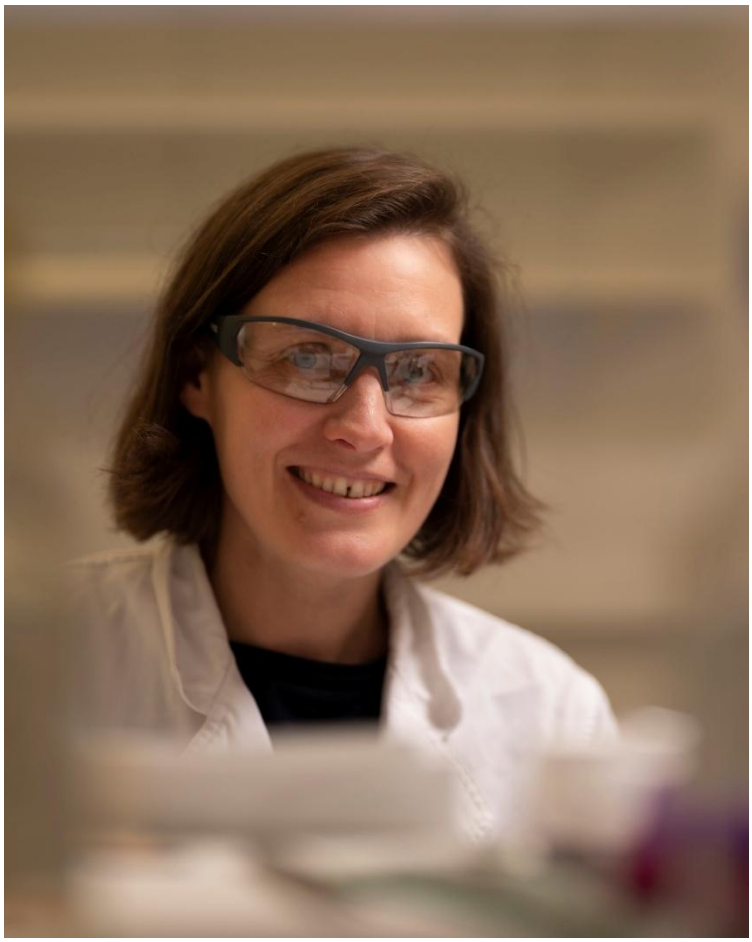
Tatiana transitioned to plant biochemistry by applying learnings from tackling antibiotic resistance in superbugs to herbicide resistance in weeds. Her team has discovered highly specific herbicidal compounds that are less prone to generating resistance.

Tatiana has published 50 journal articles and has been awarded >$3M in competitive funding as sole or lead chief investigator, including three consecutive fellowships – an NHMRC Peter Doherty Biomedical Fellowship (2015-19), an ARC DECRA (2019-22) and an ARC Future Fellowship (2023-27).

Tatiana is passionate about making science accessible by engaging with STEM professionals, politicians, students, community and media. She was named one of the 2023-24 Superstars of

STEM and the 2022 South Australian Young Tall Poppy Scientist of the Year. You can follow Tatiana @Tatiana_Biochem

Jan Anderson Award – Caitlin Byrt, Research School of Biology, Australian National University.



Associate Professor Caitlin Byrt is a bioengineer at The Australian National University working on engineering novel crops and on plant-inspired membrane biotechnologies. The crop biotechnologies Caitlin and team are developing are designed to support achieving yield security goals in challenging environments in the future and to meet new market demands, and the membrane biotechnologies are designed to enable precious metal, mineral, nutrient and clean water resources to be harvested from industrial and urban wastewater and seawater so that they can be reused. Membrane biotechnology can contribute to the efficient use and reuse of the resources required for sustainable agriculture and renewable clean energy generation and storage. Caitlin's research works have been cited by >4500 and led to fellowship opportunities such as an ARC DECRA (2005-2008) and an ARC Future Fellowship (2018-2023). Caitlin serves as start-up company co-founder and co-director for Membrane Transporter Engineers Pty Ltd and Deputy Director (Research) for the ARC Training Centre for Future Crops Development.

Dr Caitlin Byrt is an Australian Research Council Future Fellow located at the Research School of Biology at the Australian National University (Image: Jamie Kidston/ANU).

Education and Outreach Award – Ensuring Food Security Through Innovative Food Production at Western Sydney University. **The Team:** Robert Sharwood, Michelle Donovan-Mak, Jayakumar Bose, David Randall, Jing He, Oula Ghannoum and Zhonghua Chen.



Image: From Left to Right: Michelle Donovan-Mak, Jing He, Zhonghua Chen, Jayakumar Bose, Robert Sharwood, Oula Ghannoum and David Randall.

Our team has created an innovative learning environment tailored to current and future leaders in the horticulture, plant biology, and food science sectors with the long-term vision of providing healthier, and more sustainable, plants and food. In 2017, Western Sydney University and Horticulture Innovation jointly established the National Vegetable Protected Cropping Centre (NVPCC), which is used to train the next generation of growers, food practitioners, plant scientists, corporate leaders and educators. We developed three courses to bridge the protected cropping career pathway gap, Graduate certificate, Graduate diploma, and Master of Science with relevant majors. Industry informed and tailored subjects use innovative pedagogical approaches, including: flexible learning, online learning pods, and live flipped-learning tutorials. Academic materials are presented in multiple forms to engage all VARK learning styles, visual (YouTube, pictorial, graphical) audio (sound clouds, recorded lectures), reading/writing (written documents, checklists, writing tasks), kinaesthetic (hand-on practical in greenhouses, laboratories, entomological field collections).

ASPS-*FPB* Best Paper Award: Dr Babar Shahzad



Dr. Babar Shahzad holds a Master of Hons from the University of Agriculture Faisalabad in Pakistan and a Ph.D. in Agricultural Sciences (Plant Physiology) from the University of Tasmania. His doctoral work examined the "Physiological basis of differential salinity stress tolerance between cultivated and wild rice species" and resulted in the publication of three groundbreaking research papers and six reviews in internationally recognized peer reviewed journals. Dr. Shahzad is interested in researching and comprehending how plants have evolved various metabolic pathways, as well as the inherent capacity to adapt to extreme environmental conditions. His work includes an overview of plant growth regulators and their function to mitigate salt, drought, and heavy metal stress.

Unravelling the physiological basis of salinity stress tolerance in cultivated and wild rice species

Babar Shahzad, Ping Yun, Lana Shabala, Meixue Zhou, Gothandapani Sellamuthu, Gayatri Venkataraman, Zhong-Hua Chen and Sergey Shabala

Published: 22/02/2022 Functional Plant Biology 49 (4) paper

RN Robertson Lecture: Professor Kathleen Soole, Flinders University of South Australia.



I graduated from University of Adelaide in 1986 with BSc (Hons) in Plant Biochemistry after studying agricultural science. In 1990 I was awarded my PhD from University of Adelaide where I began to identify the components of the plant mitochondrial electron transport chain responsible for non-phosphorylating NADH oxidation and their regulation. Prof Joe Wiskich was my supervisor and he became a long-term colleague, mentor and friend. After my PhD I worked in the UK for 4 years on a project looking at bacterial cellulases and silage degradation, returning to a lectureship at Flinders University, also in Adelaide. I have been an active member of Australian Society of Plant Scientists over the years, twice holding the Hon. Treasurer position, Education officer and President in 2018-2020. I am now a Dean in the College of Science and Engineering at Flinders, where I continue to actively promote plant science at all levels.

Annals of Botany Lecture: Professor Christine Faulkner, John Innes Centre, UK.



Prof Christine Faulkner completed her PhD at the University of Sydney, followed by postdoctoral positions at universities and research institutes across the UK. Christine is currently a Group Leader in the Department of Cell and Developmental Biology at the John Innes Centre, where she leads a team that investigates how plant cells communicate during plant-microbe interactions. Together, the Faulkner lab have been pioneers this field and have characterised key mechanisms of how both plants and microbes target plasmodesmata to control cell-to-cell connectivity in immunity and infection. The team use a range of approaches, including quantitative imaging and mathematical modelling to test hypotheses, and collaborates with interdisciplinary researchers across a wide international community including Australia, China, the USA, Germany, and the Netherlands. Christine's research has been funded by several agencies, including by a prestigious European Research Council Consolidator Grant.

IPMB 2024 Registration and call for abstact submissions opens August 2023



IUBMB 2024 in Melbourne, 22nd-26th September 2024. Registration information August 2023.



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